Update

ON RESEARCH AND LEADERSHIP

Office of Community College Research and Leadership

University of Illinois at Urbana-Champaign

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To our readers

Our Spring issue of *Update* focuses on a theme we started in the fall on innovations in community college teaching and learning. More specifically this *Update* takes a look at what is happening in four of Illinois' seven postsecondary Tech Prep demonstration sites. Brenda Erickson reports that at John A. Logan College. located only five miles from Southern Illinois University at Carbondale, Tech Prep has produced several "best practices", including school-to-work teams and mentor training. Edward Beckstrom and June Ungari of McHenry County College describe an innovative effort to create an 'Academy for High Performance' using collegesite/worksite learning. Stephen Fleeman at Rock Valley College argues Tech Prep has been a creative force in evolutionary and enduring change in the Rockford area. Daniel Segebarth of South Suburban College says the focus of Tech Prep in the South Holland area has been on secondary-to-postsecondary collaboration with counseling taking center stage. Finally, Joan Ortman and Sue Thomas of the University of Illinois provide some helpful tips for applying benchmarking strategies to Tech Prep. (For copies of previous issues of *Update* including last fall's issue on the postsecondary Tech Prep demo sites at Danville Area Community College, Illinois Central College, and Kennedy King College, contact the *Update* staff.)

Who we are

The Office of Community College Research and Leadership was founded in 1989 at the University of Illinois at Urbana-Champaign (UIUC). The Office's mission is to provide research, leadership, and service to community college leaders and assist in improving the quality of vocational-technical education in the Illinois community college system. The Office is supported by the Illinois State Board of Education (ISBE) with funding from the Carl. D. Perkins Vocational and Applied Technology Education Act of 1990.

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John A. Logan College's Model Site Grant

Brenda Erickson, John A. Logan College

John A. Logan College is a comprehensive community college located five miles from Southern Illinois University (SIU) at Carbondale. Approximately 5,000 students are currently enrolled and working toward one of twenty-six occupational certificates or one of three associate degrees.

In its sixth year of Tech Prep funding, John A. Logan was awarded planning and implementation postsecondary demonstration grants for fiscal year 1996. Previous Tech Prep grants were used by John A. Logan for staff development, instructional materials, and supplies and equipment to develop applied academics (Communications, Math, Biology, Chemistry, and Principles of Technology). But, as Tech Prep has evolved, most of the regular federal and state moneys are now used in conjunction with postsecondary model site funds to develop an Education-to-Careers framework.

The following list exemplifies the enhancements or "best practices" that have resulted from Tech Prep funding:

- School-to-Work (STW) Teams
- College and Career Day, Health Careers Showcase
- Transportation Tech Camp
- Mentor Training
- Summer Conference for Graduates
- Principles of Technology Contest
- Integration
- College Assessment

Each of these activities is described briefly in this article.

School-to-Work Teams. School-to-Work (STW) teams were

organized on an ad hoc basis to assist with the continual planning which is necessary to prepare for Education-to-Careers. Teams for Electronics, Early Childhood Education, Health Information Technology (Medical Records), Auto Services Technology, and Accounting were organized during the planning stage of the Model Site grant last Spring.

Though secondary and postsecondary instructors throughout the consortium have been involved in integration activities for several years, this year's efforts have gone in a new direction, toward integration between career education and the humanities.

Teams were comprised of five business and industry representatives, one or two postsecondary instructors, five secondary instructors in the discipline, a current postsecondary student in the program, a liaison with Southern Illinois University, and a labor representative, if applicable.

Team members were paid stipends to attend four meetings using the following agenda:

- Sharing curriculum and program information
- Sharing of Tech Prep and School-to-Work (STW) information
- Completing of an assignment to address the question of "What

- would you do for program improvement?"
- Reporting about Program improvement

This Spring, new STW teams were formed for Computer Integrated Manufacturing and Marketing/Mid-Management, Merchandising.

College and Career Day, Health Careers Showcase.

Tech Prep funds were used to help sponsor a College and Career Day; a joint effort between four-year institutions and businesses. In particular, universities and colleges offering articulation agreements with John A. Logan's Associate Degree of Applied Science were showcased.

This was the second year that a Health Careers Showcase was offered to juniors and seniors in the 11 feeder high schools. Health-career programs were featured, which are part of the College curriculum, the Southern Illinois Collegiate Common Market (SICCM) or have some sort of articulation arrangement with the College of Technical Careers at SIU.

Transportation Tech Camp.

One of the suggestions from the Auto Services Technology STW team was a Transportation Tech Camp for junior high/middle school students to become aware of transportation occupations. Planning was started for such a camp to be offered at the College this summer. The day camp will involve secondary and postsecondary instructors from the related programs of Electronics, Auto Technology, Industrial Maintenance, and Drafting.

Business and industry involvement is being planned with local car dealerships, the Illinois Department of Transportation, United Parcel Service (UPS) and the Southern Illinois and Williamson County Airports.

Mentor Training. A Computer Information Systems instructor from the College is preparing to be a mentor trainer. His services will be available on a consulting basis as part of the consortium's work-based learning endeavor that includes job shadowing and internships.

Conference for Graduates of **Healthcare Office Support Programs.** An outcome of the Medical Records STW team was the idea of a conference for office support workers in healthcare, including medical records technicians (ARTs), medical transcriptionists and medical office assistants. Planning for this oneday professional development conference includes updates on Medical Manager software, drugs and medical procedures, and sessions on stress management and other career development activities.

Principles of Technology Contest. This is the second year that Tech Prep funds will be used to support a

Principles of Technology Contest. High school students currently enrolled in a Principles of Technology class will have the opportunity to come to the College and compete in one or more of the following events:

- an Applied Physics test
- a problem-solving demonstration
- and/or a technology-related scholar bowl

Questions for the Applied Physics test and scholar bowl are drawn from the Principles of Technology materials from the Center for Occupational Research and Development (CORD) and from current event sources such as the media.

Integration. Though secondary and postsecondary instructors throughout the consortium have been involved in integration activities for several years, this year's efforts have gone in a new direction, toward integration between career education and the humanities.

A humanities instructor from the College visited a technical college that recently completed a project whereby humanities instruction had been integrated into many of the programs, including nursing and

fire fighting. Since her visit to the college, she has been inservicing district instructors about how to integrate the humanities into career courses in order to teach decision making, interpersonal skill development, working with diverse groups, and making ethical choices.

College Assessment Endeavor and Tech Prep. Recently, John A. Logan has become involved in Assessment; since many of the Tech Prep principles are aligned with those of educational reform including assessment, accountability and continual improvement. Efforts are underway to marry the two initiatives striving for a systemic, integrated venture.

Showcase Date

The date for the showcase for John A. Logan's postsecondary Tech Prep demonstration project is April 24, 1996.

For further information about John A. Logan College's postsecondary Tech Prep demonstration site, contact Brenda Erickson at John A. Logan College, Carterville, IL 62918, 618-985-3741 ext. 312 E-Mail: erickb@jal.cc.il.us

UIUC Community College Research & Leadership Website Coming Soon

The Office of Community College Research and Leadership announces that it will soon open its own website. No address is available yet, but the site will eventually provide greater electronic access to the publications of the Office. It will be a resource for all those interested in innovative developments in community college education in Illinois. The website will include an electronic issue of the *Update*, as well as the executive summaries of reports and other publications produced by the Office of Community College Research and Leadership.

The website will also make available information about the graduate degree options of the Community College Leadership Specialization at the University of Illinois at Urbana-Champaign. We would like to invite the readers of *Update* to send us their website addresses if they are interested in linking up to this new website.

For further information, contact William Reger at wmriv@ux1.cso.uiuc.edu

The Critical Connection at McHenry County College: Collegesite/Worksite Learning

Edward S. Beckstrom & June Ungari, McHenry County College

In January 1995, McHenry County College took its first step in the development of an occupational initiative aimed at preparing individuals for functioning in a "high performance workplace." This initiative, first called Collegesite/Worksite Learning and recently renamed the "Academy for High Performance" has been funded through the Illinois State Board of Education. The effort has as its focus the preparation of individuals for work in today's technological/informational society.

In order to be successful in what the college sees as a very innovative effort, three elements need to be present:

- full support and backing of the college administration at the highest levels.
- commitment from individual faculty willing to be creative and risk change, and commitment to a vision of quality and high performance.

At the outset several factors were "given" which provided an initial framework within which efforts and decisions were made:

- The "general ed" curriculum was to be integrated with the "occupational" curriculum.
- There would be a significant work-based experience component.
- There would be representation from various college and business constituencies.
- The effort would respect current standards and expectations of occupational programs while incorporating industry-

- based/derived competency expectations.
- General education requirements would remain consistent with college policy.

Since the Office Systems
Technology (OST) program was the
most developed of the high school
Tech Prep initiatives and the college
had an Advanced Placement effort
in that area, it was selected to be the
first program to be addressed under
the initiative. This program
provides a model for development
of future programs.

This process started with a vision and is being held together by the combined visions of the people involved. Its success is a result of the commitment and energy of the individuals who see things as they might become and are willing to take some risks to get there.

Efforts to Date in Office Systems Technology

The team, referred to at McHenry County College as the "cell," included faculty, a college counselor and employer representatives. Faculty were chosen in the following areas:

- Office Systems Technology (OST)
- Computer Systems
- Communications

- Humanities
- Math/Science
- Social Science

The cell faced two challenges: team building and education. It was important that the efforts of the cell reflected the team concept used in today's high performance workplace. Individuals from various discipline groups as well as business and industry, bring to the cell different values, needs, and perceptions. Education was needed because Education-To-Career efforts were new to many of the individuals involved. The philosophical assumptions and pragmatic reasons underpinning the effort needed to be understood and accepted. There had to be agreement on the initial framework.

In the planning portion of the grant, the cell concerned itself with developing an integrated curriculum and a method of delivery that fostered integration. The curriculum needed to reflect a desire to actively involve the students in the learning process. A major intent of the overall effort was the development of workplace skills, as identified through a Developing A Curriculum (DACUM) approach and personal research done by team members.

Using the Office Systems
Technology Associate in Applied
Science Degree curriculum as an
initial framework, the cell
developed a plan whereby
integration would be achieved
through modularizing the
curriculum, having students use a

portfolio and journal and an integrative, problem-based "case study" used throughout the curriculum. In addition, team building activities and problem-solving/critical thinking components were built in.

Worksite Learning

Initial workplace experiences will begin Spring 1996 by gradually increasing worksite learning experiences until the last semester when the bulk of a student's experiences will be at the worksite. Coordination and administration of these worksite experiences are done in cooperation with a private third party entity, NetCor Inc., a firm that recruits interested business partners and provides the vehicle for placement of students in the worksite.

Collegesite Learning

The cell determined early that, because of the short planning period for the grant (January-August 1995), some compromise was in order to achieve a "fully integrated curriculum". Given institutional funding, and state credit-granting policy requirements, the decision was made to require any curriculum offered to be at least "worth" one credit hour. In order to create some flexibility in integration, several three credit hour courses were modularized into three one credit hour courses.

In addition to academic and occupational classes, courses such as Career Search, Career Satisfaction and Success, and Personal Development, which address personal development, interpersonal skills, and process skills are incorporated.

Each block of modularized courses represents one-third of the content

necessary to meet the general education requirements. All of the modularized general education courses, when completed in blocks of three, meet state guidelines for transferability.

The cell developed two major components for the first semester: a 2-week orientation and a 14-week integrated learning experience. Integrative features designed into the curriculum include:

- portfolio development, featuring a personal journal
- an integrative case study based on problem focused learning
- · team building activities
- problem solving/critical thinking components

One morning a week is reserved for cell meetings when members discuss and coordinate efforts for the current semester and plan future activities.

A Few Suggestions...

This effort continues to be an evolving, dynamic process.
Creating a new paradigm while working within an existing paradigm has been a challenge. Some things have worked well, others have been a struggle. For any college attempting to embark on a similar project, here are a few suggestions:

- Ensure commitment from the highest level of the administration.
- Form a team of volunteers and free them to participate.
- Spend time and energy on team building activities.
- Form subgroups to accomplish individual tasks and develop potential plans to be presented to the larger team for discussion and decisions.

- Resist temptation to let an individual team member dominated the group.
- Trust the process.
- Spend enough time. Avoid premature closure.
- Include all disciplines.
- Listen to your employee representatives.
- Visit worksites. Reconfirm competency requirements.
- Be willing to redefine success measurements. Enrollments should not be the measure; the process changes participants and this change is what enables creativity.
- Expect institutional changes beyond the immediate activity.
- Be flexible and willing to challenge current assumptions on education and learning.

This process started with a vision and is being held together by the combined visions of the people involved. Its success is a result of the commitment and energy of the individuals who see things as they might become and are willing to take some risks to get there.

Showcase Date

The date for McHenry County College's postsecondary Tech Prep demonstration project is April 11, 1996.

For further information about McHenry County College's postsecondary Tech Prep demonstration site, contact Ed Beckstrom, McHenry County College, 8900 US Highway 14 Crystal Lake, IL 60012-2761, (815)-455-8545

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Permitting the Postsecondary Tech Prep Initiative to Endure at Rock Valley College

Stephen R. Fleeman, Rock Valley College

Rock Valley College (RVC) began its venture into the realm of Postsecondary Tech Prep in February 1995. The Postsecondary Tech Prep Initiative builds on the solid experiences and lessons learned from RVC's extensive commitment to Tech Prep at the secondary level.

It was decided that several features from the secondary Tech Prep design should be incorporated in the Postsecondary Tech Prep model. They included:

- early strategic planning
- creating active advisory teams
- employing a continuous external evaluation of results
- using the highly successful Learn N Earn model

It was also determined that external consultants should be brought in to help launch the design.

It is recognized and accepted at all levels, administrative and faculty, that RVC has embarked on an evolutionary course, and lasting change takes time.

Distinguishing Features of the Rock Valley College project

Creation of a Postsecondary Tech Prep Leadership Team. This team includes volunteers from business and industry, social agencies, high schools, four-year universities, and Rock Valley College faculty and staff members. The team meets regularly to bring diverse perspectives into focus. The primary purpose of the team is to help establish directions for the Educational Design Team. Recruitment of volunteers for an Educational Design Team (EDT). Faculty (and a few staff members) have been enticed rather than intimidated to participate in an Educational Design Team. The result is a highly-motivated group that is ready and willing to incorporate Tech Prep principles into the postsecondary educational experience. Faculty members from the liberal arts and science areas as well as those from the vocational and technical disciplines participate regularly.

The primary focus of the Postsecondary Tech Prep model at Rock Valley College is the creation of an enduring process rather than a trendy program.

Use of consultants from the National Center for Research in Vocational Education (NCRVE) to Plan. Consultants from the University of Wisconsin NCRVE site supply the Postsecondary Tech Prep Leadership Team and the Educational Design Team with a national perspective of Tech Prep. They also facilitated the development of the mission statement for the EDT.

Use of good communication and follow-up. To maintain enthusiasm participants must reach a shared understanding of the issues and see visible changes.

Guidance provided by an external evaluator. A consultant from Northern Illinois University is an active participant in all of our activities. His comments and perspectives continue to be extremely helpful and illuminating. He helps RVC avoid myopic approaches.

Use of in-service education by the Educational Design Team.

Presentations by guest speakers and Educational Design Team members, small-group activities, and corporate site visits are used continuously. The four-day summer workshop program called Learn 'N Earn permits faculty members to dialog with managers and owners at various corporate sites to find out precisely what is required of workers.

As its first goal the Educational Design Team crafted its mission statement. The mission statement reads:

The mission of the RVC Educational Design Team is to develop a postsecondary Tech Prep model which corresponds to the diverse academic and occupational need of students, educators, and the business community. Using a collaborative process, we will identify relevant skills, competencies and evaluation criteria and then incorporate these within an integrated curriculum. The **Educational Design Team will** recommend the necessary organizational resources to ensure college-wide support and systemic implementation of this model.

The Current Status of the Rock Valley Project

Eight individual projects (minigrants) were created and initiated during the design phase. The projects were proposed by EDT members to promote the stated goals of the design phase of the project.

 Multimedia Development -Ray Fiorucci, Randy Barnhart and Tom Lombardo (Technology)

The goals of the multimedia projects are to provide a medium for describing the Postsecondary Tech Prep initiative at Rock Valley College and to develop an interactive tool for student, counselors, parents, and faculty that enables them to explore career and program options.

 Project REAL - Restructured Experiential Activities for Learning - Dick Rundall (Human Services)

Project REAL students essentially work through the design of a social agency. Real-world challenges such as funding are addressed. One goal of the project is to develop a generic team model. The model will address team training, conflict management, and methods of evaluation for individuals working on teams.

 Project Know-How - Dick Rundall (Human Services)

This second project involves applying the SCANS report to the redesign of the Human Services program. Industry representatives will be involved in the process.

MAPA - Math and Physics
 Applications - in Electronics Joe Etminan (Technology),
 George Mader (Mathematics),
 Duane Ingram (Physical Science)

The goal of this project is to help high school mathematics and science teachers do their jobs more effectively. Using a hands-on workshop, secondary math and science teachers are directed through the construction of two "flashy" electronic projects.

Basic mathematics and physics concepts are embedded in the projects and used as classroom demonstrators. Participants are permitted to take the hardware back to their home institutions for immediate implementation in the classroom. The project designers represent three separate disciplines (Technology, Mathematics and Physics). By permitting the college to reach out to the secondary teachers, the project offers a multidimensional approach to integration.

The four projects that follow were developed by Scott Fisher (Cómmunication).

- A Tech Prep Module Integrating Computer Technology into Developmental Writing Courses: A Cooperative, Applications-Based Integrated Learning Module Between Advanced and Developmental Courses.
- A Tech Prep Module Integrating Technology and Interdisciplinary Communications Skills to Speech 131 and Technical Writing 110.
- A Tech Prep Module Integrating Video Technology into a Technical Writing Class.
- A Tech Prep Module Integrating On-Line Electronic Communications into a Technical Writing Class.

These project titles point to the primary goal in each case—to bring relevance into the classroom. Each addresses areas such as how to

produce an industrial video or how to log onto and use the Internet. The practical skills capture students' interests and help them connect the traditional course goals to the "real world."

Curriculum Integration at Rock Valley College

In each case the various projects emphasize the evolving definition of curriculum integration at Rock Valley College. At its latest meeting the EDT developed its definition of curriculum integration:

Curriculum integration at Rock Valley College should be defined in the broadest possible sense - between work and the classroom, within the various disciplines, across disciplines, from secondary education through postsecondary, and from national to international perspectives.

Applied properly, integration must foster communications, relevance, and interdisciplinary relationships.

Attempts to define curriculum integration at Rock Valley College have led to an all-encompassing definition, but isn't that what a community college should be? Isn't that what we must be?

Showcase Date

The date for the showcase of Rock Valley College's postsecondary Tech Prep demonstration project is May 3, 1996. For more information and registration details, contact Sharla Parsons at (815) 654-4267

For further information about Rock Valley College's postsecondary Tech Prep demonstration site, contact Steve Fleeman, Rock Valley College, 3301 N. Mulford Rd. Rockford, IL 61114, (815) 654-5510 E-Mail: fate3sf@rvcux1.RVC.cc.il.us

South Suburban College: Awareness Through Tech Prep Projects

Daniel Segebarth, South Suburban College

South Suburban College has maintained an outstanding working relationship with its Education-for-Employment partner, Career Development System, located in Harvey, Illinois. Through long-term collaboration, community college and secondary school faculty have met regularly to update course and program articulation agreements.

Prior to 1995, secondary school faculty prepared a Postsecondary Articulation Form documenting the student's achievement, and this form was sent to South Suburban. The College did not have a procedure to record these credits on an incoming student's record and, subsequently, College counselors lacked sufficient information for accurately planning the student's first semester college program.

Counseling

The College employed a half-time adjunct counselor whose primary responsibilities include assisting entering Tech Prep students.

Since 1995, secondary school graduates who have received a grade of "B" or better in articulated courses have been issued a Certificate of Achievement. Data is electronically transmitted to the College, matched with local records, and credit awarded to those students who have taken the ASSET test and enrolled in one of the College's Career programs.

The Tech Prep counselor sends a letter to graduates and their parents notifying them of the award of college credit and asking them to arrange an appointment. In 1996,

the college initiated the use of a Career Planning Guide, developed by the Perkins Program Coordinator and the Director of the Placement Center, through a project sponsored by the University of Illinois-Urbana Champaign, Community College Leadership program.

The College recognized the need to improve its counseling of Tech Prep students and to strengthen its linkage with secondary school faculty and administrators. Working with the Career Development System, a plan was developed and submitted as a Tech Prep Demonstration Site Grant. The initial grant proposed to:

- provide a smooth transition from high school to college for the Tech Prep student
- ease the transition from college into the workplace
- bring Tech Prep's contextual learning methods into the classroom.

One of the responsibilities of the Tech Prep counselor is to conduct research on the most recent Tech Prep cohorts who have entered the College. The results of the research will be presented at the Connections Conference in St. Charles, Illinois, in April, 1996.

Preliminary analysis reveals that several Tech Prep students enter the College and enroll in transfer degree programs and, thereby, do not receive credit for articulated courses.

Career Awareness

The College developed a career awareness pilot project for District #148 junior high school students. An instructor was hired by the district to work with South Suburban College/Career Development System (SSC/CDS) administrators and staff to develop a career awareness program.

Grant funds were used to purchase the "Enter Here" series of career videotapes which are shown to junior high school students. Printed materials were also obtained. At the conclusion of an eight-week module, business representatives from College advisory committees meet with students to discuss career options available through secondary Tech Prep programs.

Contextual Learning

South Suburban College science faculty, working through the Career Development System, have used the Bio-chemistry course materials of the Center for Occupational Research and Development (CORD) to provide training for secondary school faculty in the use of contextual learning materials. Equipment and supplies have been purchased for use by secondary school faculty in their biology and chemistry laboratories.

High school biology and chemistry teachers from several local school districts used segments from various units of the Applied Biochemistry materials. Participants discussed the various units and activities which they have utilized and/or revised to fit into curricula. These materials were collected and the South Suburban College presentation team collated, edited, organized, and disseminated resource books in Chemistry and Biology to each of the participants. The books will be continually enhanced and new topics will be gradually added so that, over the course of the year, each teacher will have a manual adapted specifically to meet state, district, Tech Prep, and teacher goals.

| Manufacturing Technology

Bremen School District #228 operates one of the few secondary school manufacturing technology programs (courses) within the College district. As part of the 1995-96 Demonstration Site program, the College, along with District #228 will develop a model Tech Prep program.

The College has been selected to participate in the National Level One Manufacturing Skill Standards Pilot Project. The South Suburban College Machine Tool Advisory Committee has been reviewing the skill standards and will work closely with the program coordinator and secondary school faculty to establish the academic

and skill requirements for an integrated (machine tool-manufacturing) Tech Prep program.

Showcase Date

The date for the showcase of South Suburban College's postsecondary Tech Prep demonstration is May 20, 1996 at the South Holland campus.

For further information about South Suburban College's postsecondary Tech Prep demonstration site, contact Dan Segebarth, South Suburban College, 15800 S. State St., South Holland, IL 60473, (708) 596-2000 ext. 730 FAX: 708-210-5758

Suggested Readings on Tech Prep and Benchmarking

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Building Quality Through Benchmarking

Joan Ortman, UIUC and Lincoln Land Community College & Sue Thomas, UIUC

Benchmarking has long been used by business and industry as a way to improve quality. AT & T, IBM, Motorola, and General Motors are but four of the U.S. companies that have received the coveted Malcolm Baldridge award by using benchmarking to improve products and services. Applied wisely, benchmarking could be a way to improve quality in education as well.

In simple terms, benchmarking is "learning from others how to do things better." It is a tool used to improve quality by comparing existing processes, products and services against the best known examples. It is a continuous effort or "life long" activity for assessing what is being done—not a temporary activity with definite closure. Beginning in 1995, a Malcolm Baldridge Award—based extensively on benchmarking methods—began to be applied to education as well.

How to Benchmark

According to Michael J. Spendolini, author of *The Benchmarking Book*, benchmarking has five stages.

Stage One—Identifying a subject to benchmark. To be most effective the subject must be a process critical to the work being improved. Customers must be identified. When customers are appropriately identified and the problem is clarified, a time frame is developed and support is provided.

Stage Two—Forming a benchmarking team. Prior to forming a team, the scope, goals, and expectations of benchmarking must be clear. Team members and

key players need to be identified and trained, and their roles and responsibilities made clear.

Stage Three—The team identifies partners to benchmark. Several methods can be used for determining who "best" accomplishes the process being improved. Professional contacts such as speakers, consultants, authors, and prior award recipients can often name those who have excelled at selected activities. Additionally, data bases, professional journals and government documents can be used to find benchmarking partners.

In simple terms, benchmarking is "learning from others how to do things better." It is a tool used to improve quality by comparing existing processes against the best known examples.

Stage Four—Collecting and analyzing the benchmarking information. There are three kinds of data that need to be collected and analyzed:

- The process as it presently exists
- Similar processes within the team's own organization
- Processes outside the team's organization

A team needs to know the strengths and weaknesses of its own process *before* benchmarking. Data gathering tools such as focus groups, questionnaires, and interviews help to answer the following key questions:

- What is the process supposed to accomplish?
- How does it work now?
- What impact would change have on those who depend on a successful operation?
- How is the process currently evaluated?
- How are problems documented and reported?
- What is the best-known example of how the process should be carried out?

Stage Five—Preparing the summary report. The summary report communicates the findings to groups within the organization and the benchmarking partners. Opportunities for change are implemented as individuals learn about new views and incorporate them into the organization.

Benchmarking Used by the Postsecondary Demo Sites

In July of 1995, representatives from the seven Illinois Postsecondary Tech Prep Demonstration Sites met at Unisys Corporation in Lisle, Illinois to learn about using "benchmarking" as a method for building educational quality. College presidents, vice presidents, deans, faculty, Tech Prep directors, students, and employers were among those who attended the two-day retreat.

The concept of benchmarking was introduced to all participants by Professor Debra Bragg, UIUC. She suggested that if educators are not satisfied with "business as usual" and want to initiate creative change, then it is important to look "outside the box" of present experiences to find innovative ideas.

The summer retreat provided participants with the opportunity to explore the benchmarking process. Using Spendolini's book, the teams were asked to establish ground rules for their teams and to discuss their college's strengths and weaknesses in relation to eight "critical processes" linked to Illinois' plan for Tech Prep. Those processes are:

- Articulation
- Assessment and institutional effectiveness
- Collaborative partnerships
- Counseling, support services and retention
- Curriculum development academic and vocational integration
- Professional development
- Student identification and recruitment
- Work-based learning

Retreat participants used a "Selecting a Process" form to identify 2-3 work processes. In selecting a process, individuals were asked to focus on a general process such as marketing and ask questions such as "Who knows about Tech Prep?" and "What do they know?" Additionally, they were asked to identify people (stakeholders) who might be affected by changes in a critical process such as marketing.

In subsequent team meetings, retreat participants discussed the types of teams appropriate for benchmarking. Members of the teams explored effective ways to develop new teams and criteria important for selecting other team members.

In the final small group session, participants discussed ways to identify (and be) an effective benchmarking partner.
Resources for identifying and

criteria for selecting benchmarking partners were explored and identified.

Progress on Benchmarking

Currently engaged in a project using benchmarking, Danville **Area Community College** (DACC) is working to improve Tech Prep student identification and recruitment procedures. DACC has formed a team, focused the general topic, and developed a survey for parents, students, counselors, faculty, administrators, and business associates. The survey is helping to determine the effect of specific recruitment and identification strategies on students' understanding the advantages of a Tech Prep associate degree.

Recently, the DACC benchmarking team met to review and analyze the self-assessment data. Future plans include looking outside the college for benchmarking partners, collecting and analyzing more data, summarizing findings, and, most importantly, taking action to improve the process.

At Rock Valley College (RVC) the education design team has begun plans to carry out a benchmarking project in the area of curriculum integration. The team has met extensively to reach consensus on a common definition of the curriculum design process, a crucial step for any benchmarking project. By clarifying the integration process and establishing clear and measurable parameters for it, a solid foundation will be established for the selfassessment and comparative evaluations with benchmarking partners.

RVC plans to continue this benchmarking project into the next academic year, hoping to establish a highly effective curriculum integration model that could be shared with other community colleges in the state.

Using Benchmarking in Tech Prep Education

Benchmarking has been applied successfully to Tech Prep in the state of Wisconsin. Connell and Mason (1995) provide a model for benchmarking processes in Tech Prep and School-to-Work. They suggest tools which can be used to identify and collect data related to benchmarking processes. By using outcome measures rather than expenditures, they show how benchmarking in education can be carried out successfully.

Suggested Resources

Benchmarking: Focus on world-class practices. (1992). Indianapolis, IN: AT&T Quality Steering Committee.

Connell, T. J. and Mason, S. A. (1995, April). School to work transition: issues and strategies for evaluation and program improvement working paper. Paper presented at the Annual Meeting of the AERA, Madison, WI: Univ. of Wisconsin.

Inger, M. (1993, October).

Benchmarking in education: Tech Prep, a case in point. Institute on Education and the Economy (ISSN 1059 2776), New York: Teachers College, Columbia University.

Spendolini, M. J. (1992). *The benchmarking book*. New York: AMACOM.

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